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## Original paper

# Perceptions of Local Communities towards Sport Hunting Activities in Rurambira and Nyakahita parishes, Kiruhura District

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**ABSTRACT:** This paper explores the perception of local communities towards sport-hunting (SP) activities around Lake Mburo National Park in Uganda. A cross-sectional of 286 respondents from Nyakahita and Rurambira in Kiruhura participated in the study by answering the questionnaire. Quantitative data were analyzed using Statistical Package for Social Scientists (SPSS). Results reveal that half 148 or 52% of the respondents had participated in sport hunting activities for >4yrs. Most of these were male 199 or 69.5%. Sport hunting's ability to prevent poaching is rated as "disagree," or (Mean = 2.29; SD = 1.51). Though sport hunting benefits local communities where animals are hunted at 36.7%. There is a need to strengthen law enforcement by recruiting village wildlife scouts to work with sport hunting companies to curb poaching around Lake Mburo National Park.

**Keywords:** Sport Hunting, Wildlife Conservation, Kiruhura District

## INTRODUCTION

Sport hunting (SP) was introduced by the Uganda Wildlife Authority (UWA) on private land around LMNP in 2001 to address the long-standing history of human-wildlife conflicts in this area. Before it was gazetted, communities occupied the area largely living as pastoralists and cultivators (Ochieng, 2019). After gazettement, these communities could remain in the area, but only after acquiring permits from the Game Department, implying that the communities had to seek permission from the government to occupy their ancestral land. However, although arbitrary, the new rules accommodated the interests of the community, and they were able to coexist with wildlife in the game reserve (UWA, 2015). The land outside the game reserve remained communal, allowing for grazing, cultivation, and wildlife to freely roam the area. However, the situation soon began to change, when private land ownership around the game reserve was becoming more common, and communal lands were

grabbed by the local elites, leaving out poorer community members, especially the pastoralists without adequate land. Worsening the situation for the pastoralists, another large part of community land was alienated by the government to establish government ranches, thereby pushing the pastoralists to the margins of these ranches. Therefore, many homeless and landless pastoralists resorted to grazing their cattle in Lake Mburo National Park. The 1975 land reform decree caused further grabbing of the remaining communal land by the government, turning it into additional government ranches, pushing even more people into the game reserve, and thereby intensifying the competition over resources (Wanyama *et al.*, 2017).

### Problem statement

Fischer *et al.* (2015) argue that Sport-hunting (SP)

breaches the moral precept of the sanctity of life and can harm and even lead to the extinction of species. According to Fischer *et al.* (2015), hunting is only socially acceptable if it is done for sustenance. Otherwise, commercial hunting would be considered a kind of wildlife poaching and should be outlawed (Kisame *et al.*, 2017). Fischer *et al.*, (2015) and Kisame *et al.*, (2017) express concerns about negative attitudes toward sport hunting in their literature. It is related to the study in that even among communities around Lake Mburo National Park, there are some with similar thinking. The gap in this literature is that it does especially on accelerating poaching.

Following the increased human population in Uganda, from 4.9 million people in 1948 to the recent 2018 population estimate of 44.3 million people (UBOS, 2018), human-wildlife conflicts have been on the rise, as Uganda's protected areas are encroached upon for arable land, settlement, grazing, and extractive industries. Human-wildlife conflicts are "conflicts which occur whenever an action by humans or wildlife hurts the other" (Nyhus, 2016). For instance, there are many forms of human-wildlife conflicts, when regarded as pests or nuisances, when people poach wildlife, or when large predators and herbivores injure or kill people and livestock (Nyhus, 2016). In the case of Uganda, to reduce human-wildlife conflicts, the government has experimented with and implemented several (alternative) CBC-related approaches, including the 20% Tourism Revenue Sharing Scheme (UWA, 2015).

## Literature review

Brandt (2016) observes that some sport hunters retain trophies, especially exceptionally fine, large, or old specimens. Species with sexually selected features that are easy to preserve (such as antlers in deer or tusks in elephants) may generate a particular demand among sport hunters. Brandt (2016) found no consistent impact of sport hunting on ungulate population sizes in southern Kiruhura. Intensive selective hunting pressure targeting adult males can cause a sudden population collapse. The disturbance caused by sport hunting can have an impact on animal behaviour. Hunting areas adjacent to the national park avoided areas where hunting occurred, although grizzly bears used hunting areas more frequently due to increased scavenging opportunities (Cruise, 2016). The after-effects of sport hunting are spelled out in this study. However, there is also a need to find out the reason why hunting is practiced.

According to Macdonald *et al.* (2017), sport hunting and wildlife conservation have both been part of human culture from the earliest times. As the World Bank Group (2019) notes, sport hunting does not always target problem animals. For instance, crop raiding by elephants in Omay Communal land, Zimbabwe, occurs largely in the wet season (November to April), but the majority of

sport hunting takes place during the dry season (May to October), so elephants shot as trophies are not necessarily the animals involved in crop raiding, nor does the removal of these animals alleviate the problems of crop loss at other times of the year. In this observation, the World Bank Group (2019) communicates about the nature or category of animals targeted for sport hunting and does nothing to explain the reasons for conducting sport hunting. This continues to show a lack of adequate knowledge about the second objective of the study, which seeks to establish the reasons behind the sport hunting activity.

According to Batavia *et al.* (2018), sport hunting faces all the difficulties that other forms of enterprise-based conservation have. These include getting the incentive structures and resource ownership correct and ensuring effective and robust institutions for resource management and disbursement of benefits. Many countries also suffer from broader problems of corruption, poor governance, institutional failure, and social and economic upheaval, which reduce the likelihood of long-term success for any conservation or development activity. Sport hunting acts directly and indirectly on the ecology of the target species and other species. For example, where population management is thought desirable, hunters may take on the role of extirpated natural predators. Batavia *et al.*, (2018) hint at the difficulties involved in conducting sport hunting. This is related to the study because it talks about sports hunting, but the direct reasons for sports hunting are not articulated.

Population management is often necessary when species have been reintroduced for conservation reasons, and revenue generated by sport hunting could potentially offset some of the losses caused by these species. This can in turn improve the public acceptance of such reintroductions. One of the most important potential benefits is habitat preservation, which acts to conserve both the target species and associated species. Any kind of hunting affects the demographic structure of the target species, and this can have knock-on effects, including evolutionary change. Sport hunting may be particularly detrimental in this regard because it is often highly selective, targeting specific individuals (Brandt, 2016). In these results, the idea behind sport hunting is the reduction of animal populations for better resources. However, the study was not conducted within the perimeter of Lake Mburo National Park; thus, this information could not automatically be considered valid enough to nullify the study.

Van der Duim *et al.*, (2015) note that in Africa, areas set aside for sport hunting and sustainable wildlife use greatly increase the amount of habitat available to wild species. Without revenue from hunting, political pressure might be exerted to turn these areas over to domestic livestock production, which could irreversibly damage these ecosystems. Twenty percent (140,000km<sup>2</sup>) of Zambia's land area is made up of game management

areas, whereas only half as much land is designated for national parks. The Zimbabwean rural district councils participating in the CAMPFIRE scheme set aside substantial areas for wildlife, estimated at 36,000 km<sup>2</sup> (CAMPFIRE Association, 2016), whereas safari areas and private hunting land administered by National Parks make up another 50,000 km<sup>2</sup>. In South Africa, from the late 1990s to 2002, the land was converted from cattle ranching to extensive game ranching, largely for hunting (van der Duim *et al.*, 2015). This Zimbabwean study directly concerns the expansion of areas for wildlife. It is more appropriate for studies that seek to establish adequate space for wildlife, so it cannot be used to halt research into the reasons for sport hunting activities.

Sport hunting can benefit conservation in several ways, with the acquisition and protection of habitat being a major benefit. In addition, the generation of substantial revenue is also possible, and there are cases where this revenue is used in the conservation of biodiversity. There are also many cases where it is less clear that hunting revenue is reinvested in conservation. Genetic, behavioral, and population impacts may need to be guarded against, although there are few clear-cut cases where these have had significant impacts on the viability of populations (Naidoo *et al.*, 2016). These benefits do matter and apply to the study, but they cannot be generalized to suit the context of Lake Mburo National Park and the communities around it.

Cove (2018) notes that the benefits of sport hunting can sometimes outweigh any disadvantages if responsibly managed and monitored. All conservation and resource use requires managers that can monitor wildlife populations and ecosystems, set and enforce limits, and ensure that benefits are disbursed wisely so that conservation is competitive with alternative land uses. Such a regulatory infrastructure is expensive compared with other non-consumptive uses of wildlife. Sport hunting has the potential to generate large profits, and sport hunters collectively demonstrate responsibility with passionate concern to see their quarry species conserved. This makes sport hunting a potentially attractive option for conservationists (Cove, 2018). These responses in the literature are not so clear concerning the reasons for the sport of hunting activity. This paper presents perceptions of sport-hunting activities from communities around Lake Mburo National Park.

## METHODOLOGY

### Research Design

A cross-sectional design was adopted for the survey. Given the stratified structure of respondents, the strategy was chosen since it allowed for simultaneous interaction with many groups. This method is essential for obtaining data from a population sample so that findings may be

generalized to the entire community to mitigate the effects of social change.

### Study population

The study population consisted of the different stakeholders, including sports hunting companies, District Local Government Officials, LMNP Officials, and Local Community Members. They were sampled because of their knowledge and information about atheist life and their oversight of environmental conservation management and nature (Table 1).

**Table 1:** Study population and sample size.

Designation	Target Population	Sample Size	Sampling Technique
Sport hunting company officials	25	07	Purposive sampling
District Local Government officials	15	04	Purposive sampling
Lake Mburo National Parks officials	160	46	Purposive sampling
Local community members	800	229	Simple random sampling
Total	1,000	286	

Source: (LMNP Sport Hunting Report 2020)

### Sampling framework

The sample was calculated using Yamane's (1967) formula:  $1 + N(e)^2$  where  $n$  = sample size,  $N$  = total population targeted, and  $e$  = percentage of error in sample selection (5% or 0.05), and 1 represents any likely avoided element that would have been included.

$$n = \frac{N}{1 + N(e)^2}$$

Formula;

Where  $n$ = sample size

$N$  = total population targeted

$e$  = percentage of an error made in selecting the sample (5% or 0.05)

1 = is representative of any likely avoided element that would have been included

$$n = \frac{1000}{1 + 1000(0.05)^2}$$

$$n = \frac{1000}{1 + 1000(0.0025)}$$

$$n = \frac{1000}{1 + 2.5}$$

$$n = \frac{1000}{3.5}$$

$n$ = 286

The researcher employed a simple random sampling technique to select the local communities to participate in the study. Sport hunting companies, district local government officials, and Lake Mburo National Parks/UWA officials were selected purposively.

### Data collection and analysis

The data presented in this paper was collected through a questionnaire survey. The respondents were trained to fill out the questionnaire. Later, the questionnaire was self-administered. The questionnaire was chosen as the most appropriate tool to help the researcher gather as much data as feasible in a shorter period. The responses in the questionnaire were coded, edited, and entered into SPSS for analysis to generate data on central tendencies.

### Ethical considerations

The researcher was granted an authorization letter to collect data from the Dean of the School of Sciences at Nkumba University after approval of the researcher's proposal. The letter was presented to the Deputy Director of Human Resources of Uganda Wildlife Authority that introduced the researcher to the Chief Warden, of Lake Mburo National Park. The researcher explained the research to ensure that all respondents participated voluntarily by obtaining their consent. A detailed explanation of the purpose of the study was made to respondents before participation to avoid suspicion and bias among the respondents. At all times of data collection, informed consent, and confidentiality were maintained during the study. Confidentiality was considered to protect the privacy of the respondents or participants. Respondents/participants were also assured that the study was solely for academic purposes; and that the self-administered questionnaires were intentional to ensure anonymity. The participants chose to participate in the study voluntarily, and they had the option to withdraw at any time. The respondents' anonymity was preserved by not asking them to write their names on the questionnaires. There is no known risk of physical or psychological harm to participants in this study. Furthermore, all researchers and scholars whose work was cited in this study were quoted, acknowledged, and appropriately cited. The researcher ensured that findings are reported to avoid the fabrication of information through the presentation of fraudulent results. At this level, the researcher acknowledged the importance of knowledge in the pursuit of truth. Individual identities were withheld to protect against traceability and flexibility, and a lot of effort was put into ensuring participants' or respondents' rights to privacy.

## RESULTS AND DISCUSSION

### Demographic characteristics of the respondents

Table 2 shows the demographic characteristics of the respondents. Demographic characteristics such as sex, age, education level, and years of participation in sport-hunting influence perceptions towards sport-hunting activities. Males accounted for 69.5% and females 29.5% (Table 2). This implies that in the Rurambira and Nyakahita parishes in the Kiruhura district, men were most involved in sport-hunting activities. Males are left to play a bigger role in recreational hunting and wildlife conservation because most women are stay-at-home spouses and cannot stay in the bushes participating in sport-hunting activities. According to the results, 60% of the respondents were between the ages of 41 and 50. This demonstrates that most of the sport hunting and animal conservation efforts are carried out by older males and females in the Rurambira and Nyakahita parishes.

In the Rurambira and Nyakahita parishes of Kiruhura District, almost half (49%) of the sport-hunters and those associated with the activity had attained a tertiary level of education. The study investigated the respondents' involvement in sport hunting to gain an understanding of how long communities had been participating in sport hunting activities, 52% had been involved in the sport for at least four years. This demonstrates that sport hunting is well understood in the Lake Mburo National Park (LMNP) landscape.

**Table 2:** Demographic Characteristics of Respondents.

Category	V	N	(%)
Sex	Male	199	69.5
	Female	97	29.5
Age (years)	21 – 30	17	5.9
	31 - 40	23	8.0
	41 – 50	172	60.0
	>50	74	26.0
Education Level	None	29	10.0
	Primary	43	15.0
	Secondary	74	26.0
	Tertiary	140	49.0
Years of participation in sport hunting	<2yrs	46	16.0
	2 – 4yrs	92	32.0
	>4yrs	148	52.0

### Perceptions of local communities towards sport hunting activities

The descriptive statistics for sport hunting are shown in (Table 3). Table 3 assesses perceptions of sport hunting among respondents from Rurambira and Nyakahita parishes around Lake Mburo National Park. The data show that sport hunting's ability to prevent poaching is rated as "disagree," or (Mean = 2.29; SD = 1.51). The fact that many people disagree that sport hunting is a better activity than poaching suggests that the local populations in the Rurambira and Nyakahita parishes in the Kiruhura District do not have enough knowledge about the purpose or justification for it. Fortunately, the goal of this study was to raise awareness of the fact that



**Table 3:** Perceptions of local communities towards sport hunting activities.

Perception	Min	Max	Mean	SD	N	SD	D	N	A	SA
SP controls poaching	1.00	5.00	2.29	1.51	286	49.7	10.8	13.3	12.9	13.3
SP controls the animal population	1.00	5.00	2.41	1.50	286	44.8	11.5	14.7	15.7	13.3
SP funds conservation	1.00	5.00	2.39	1.41	286	38.8	20.3	14.7	15	11.2
SP helps protect the land	1.00	5.00	2.42	1.45	286	36.7	26.2	8.7	14.7	13.6
SP conservation incentives	1.00	5.00	2.67	1.57	286	37.1	14.3	12.6	16.8	19.2
Benefit local people	1.00	5.00	2.66	1.61	286	41.6	7.3	14.3	16.8	19.9

Source: Primary Data 2022

sport hunting is never bad and is always beneficial to the welfare of wildlife that is being conserved.

Interactions with sport hunters reveal that a relatively limited number of animals, mostly older males past reproductive age, are taken when well-regulated, sustainable hunting is performed, according to findings from interviews with Lake Mbuoro National Park authorities and Kiruhura District officials. Healthy animal populations are not adversely affected by this, and it may even assist numbers to increase. The evidence suggests that sport hunting can deter poaching. The fact that there is widespread disagreement about whether sport hunting is preferable to poaching implies that the local populace in the Kiruhura District's Rurambira and Nyakahita parishes are unaware of its benefits or justifications. Thankfully, the study's objective was to increase public understanding of the fact that sport hunting is always for good for the well-being of wildlife that is being protected. According to Fischer et al. (2015), hunting is only socially acceptable if done for food. Otherwise, commercial hunting, which is a kind of wildlife poaching, would be banned (Kisame et al., 2017).

The notion that sport hunting controls the animal population received a rating of "disagree" (Mean = 2.41; SD = 1.50). In other words, there also existed a knowledge gap because the majority of the local community members were not aware that sport hunting was an act geared towards reducing the number of animals and maintaining the required numbers that would easily receive enough feeds and medical attention. However, results from interviews revealed that spot hunters are also urged to record the number of animals they killed during a season and the location of the kill. This enables conservation biologists to assess long-term changes in the number and distribution of animals. The findings are consistent with those of Naidoo *et al.* (2016) and show that sport hunting has several conservation-related advantages, with habitat acquisition and protection standing out as key ones. It is also feasible to generate a sizable amount of income, and in certain circumstances, this income is put toward biodiversity preservation. There are also numerous instances when it is less obvious whether hunting profits are used to further conservation. Although there are few definite instances when genetic, behavioral, or demographic influences have had a substantial impact on the survivability of

populations, it may be necessary to take precautions against them.

Further, the study's findings show that there are still knowledge gaps in the local communities, particularly when it comes to their opinions on whether sport hunting is done to secure funds. Their responses were rated as "disagree," as shown by (Mean = 2.39; SD = 1.41) and the study's findings. Sport hunting has many good effects, including the element of gaining money, despite how it may first look and be regarded. The reasoning behind this is that keeping a reasonable number of animals at a zoo ensures that they receive proper care and protection, which is necessary to draw tourists and, in turn, generate revenue for the continued development of the wildlife industry. Brandt (2016) found no consistent impact of sport hunting on ungulate population sizes in southern Kiruhura. Intensive selective hunting pressure targeting adult males can cause a sudden population collapse. The disturbance caused by sport hunting can have an impact on movement behaviour. Hunting areas adjacent to the national park avoided areas where hunting occurred, although grizzly bears used hunting areas more frequently due to increased scavenging opportunities.

There was a disagreement on the perception regarding whether sport hunting helps to protect the land. The results as per Table 3 received a rating of "Disagree" as reflected in (Mean = 2.42; SD = 1.45). By implication, it is widely unacceptable that sport hunting is conducted for benefits related to land conservation. Additionally, the results showed that sport hunting obtained a grade of "Neutral" in terms of encouraging conservation, as indicated by (Mean = 2.67; SD = 1.57), suggesting that there are still more information gaps about the justification for sport hunting. However, considering the mean score, which is above average, it is suggestive of the fact that at least some individuals believe that sport hunting generates conservation incentives, though they were unsure. The idea that sport hunting improves the local community likewise obtained a grade of "Neutral" and was represented by (Mean = 2.66; SD = 1.61).

Overall, the notion that sport hunting controls animal populations received a rating of "disagree" from respondents in the Rurambira and Nyakahita parishes in the Kiruhura District, Kiruhura. This suggests that many people do not have enough knowledge about the purpose

or justification for sport hunting. Studies such as this are important in creating awareness about the perceptions of SP to strengthen wildlife conservation. Results showed that sport hunting obtained a grade of "Neutral" in terms of encouraging conservation, suggesting that there are still more information gaps about the justification for sport hunting. However, considering the mean score, it is suggestive that at least some individuals believe that sport hunting generates conservation incentives, though they are unsure. Respondents are not only certain but also believe that sport hunting is advantageous since it benefits the local population in terms of income especially when the wild animals are sport-hunted on their land.

## Conclusion

Respondents from the Rurambira and Nyakahita parishes of the Kiruhura District disagree that sport hunting regulates animal populations. Respondents are unaware of the benefits of sport hunting. The findings indicated that there are still significant knowledge gaps based on sport hunting. To the least extent sport hunting encourages conservation. Sport hunting benefits local communities especially when animals are sport-hunted on their land. There is a need to strengthen law enforcement by recruiting village wildlife scouts to work with sport hunting companies to curb poaching.

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